Amendments to the Claims

This listing of claims will replace all prior versions, and listings, of claims in the application.

Listing of Claims

1. (currently amended) A digital camera system, comprising:

a digital camera having an image-receiving lens and an image sensor, the image sensor coupled to and in communication with a processor, the image sensor designed to detect an image from the lens; and

a sealed case surrounding the digital camera, the case varying in thickness in areas in which reinforcement is needed, the case constructed and arranged for providing a water resistant enclosure for the camera and adapted for transmission of the image from the image sensor to a display located external to the case without opening the case.

2. (original) The camera system as recited in claim 1 wherein the case is formed from two sections of material permanently bonded together.

3. (original) The camera system as recited in claim 1 wherein the case is waterproof at depths less than about six meters.

4. (original) The camera system as recited in claim 1 wherein the case is pressure resistant at depths up to about 60 meters.

5. (currently amended) The camera system as recited in claim 4 wherein the case ~~is made from~~ comprises a polycarbonate resin material, further wherein areas of the case are reinforced.

6. (original) The camera system as recited in claim 1 wherein the case is pressure resistant at depths up to about 90 meters.

7. (currently amended) The camera system as recited in claim 6 wherein the case ~~made from~~ comprises an aluminum alloy.

8. (original) The camera system as recited in claim 1 wherein non-optical internal airspace within the case is filled with a solid or liquid material.

9. (original) The camera system as recited in claim 8 wherein internal airspace between the lens and an image sensor is filled with an optically-neutral material.

10. (original) The camera system as recited in claim 1 further comprising:

a battery system;

a storage system powered by the battery system;

a user interface in communication with the storage system and battery system;

an internal display in communication with the user interface; and

an image transmitting apparatus for outputting an image from the camera to a controller external to the case.

11. (original) The camera system as recited in claim 10 wherein the means for outputting the image comprises a wired or wireless transmission link.

12. (original) The camera system as recited in claim 11 wherein the wireless link is an infrared link or radio frequency link.

13. (original) The camera system as recited in claim 10 wherein the storage system is a high-capacity integrated storage system.

14. (original) The camera system as recited in claim 13 wherein the storage system is rechargeable with an inductive charging mechanism.

15. (original) The camera system as recited in claim 10 wherein the storage system is interchangeable.

16. (original) The camera system as recited in claim 10 wherein the battery system is a high-capacity integrated battery system.

17. (original) The camera system as recited in claim 16 wherein the battery system is rechargeable with an inductive charging mechanism.

18. (original) The camera system as recited in claim 17 wherein the battery system is rechargeable using solar energy.

19. (original) The camera system as recited in claim 10 wherein the battery system is interchangeable.

20. (original) The camera system as recited in claim 10 wherein the battery system and storage system are combined into a single unit located in a sealed case external to the camera case.

21. (original) The camera system as recited in claim 17 further comprising a light source in communication with the camera system.

22. (original) The camera system as recited in claim 21 wherein the light source is an inductively rechargeable external strobe light in communication with the camera system via a wired link, wireless link or a set of non-corrosive contacts.

23. (currently amended) A camera system designed for underwater use comprising:

a digital camera;

a sealed case surrounding the digital camera, the sealed case varying in thickness in areas in which reinforcement is needed; and

a transmission link for outputting images from the digital camera to a remote controller.

24. (original) The camera system as recited in claim 23 wherein the digital camera is a video camera.

25. (original) The camera system as recited in claim 23 wherein the remote controller is a personal computer.

26. (original) The camera system as recited in claim 23 wherein the remote controller is a printer.

27. (original) The camera system as recited in claim 23 wherein the transmission link is a wired link or a wireless link.

28. (currently amended) A method for using a sealed digital camera system comprising:

activating internal camera controls with a user interface, wherein the user interface comprises physically sealed buttons that control a focus system, a shutter, a zoom lens, and f-stop settings and allows access to advanced on-screen controls that are displayed on an internal display;

obtaining one or more images with the camera system; and

transmitting the one or more images to a controller with a transmission link in communication with the camera system.

29. (original) The method of claim 28 further comprising recharging a battery system using an external power supply.

30. (original) The method of claim 29 wherein the power supply is an inductive charging mechanism.

31. (original) The method of claim 28 further comprising recharging a storage system using an external power supply, the storage system in communication with the camera system.

32. (original) The method of claim 31 wherein the power supply is an inductive charging mechanism.

33. (original) The method of claim 28 further comprising replacing an external storage system contained in a sealed case, the external storage system designed to communicate image data with the camera system during use.

34. (original) The method of claim 28 further comprising replacing an external battery system contained in a sealed case, the external battery system designed to communicate with the camera system during use.

35. (original) The method of claim 34 wherein the battery system communicates power and charge status to the camera system.

36. (original) The method of claim 28 comprising replacing or recharging a combination battery and storage system.

37. (original) The method of claim 28 further comprising illuminating an area with a light source which is in communication with the camera system.

38. (currently amended) The method of claim 28 further comprising viewing information on ~~an~~ the internal display in communication with the user interface and located in the camera system.

39. (new) The camera system as recited in claim 1 wherein areas in which reinforcement is needed comprise at least one of corner areas of the case, areas of the case that cover fragile camera components, and areas of the case that cover protruding camera components.

40. (new) The camera system as recited in claim 1 wherein the case comprises a polycarbonate having a thickness in most locations of less than about 0.3 cm and is waterproof at depths less than about six meters.

41. (new) The camera system as recited in claim 1 wherein the case protects from contaminants and comprises a polypropylene having a thickness in most locations of less than about 0.13 cm.

42. (new) The camera system as recited in claim 1 wherein the case comprises a polycarbonate resin material having a thickness in most locations of about 0.3 cm to 0.64 cm and is waterproof and pressure resistant at depths below 6 meters and up to 60 meters.

43. (new) The camera system as recited in claim 1 wherein the case comprises an aluminum alloy having a thickness in most locations of less than about 0.3 cm and is waterproof and pressure resistant at depths up to about 90 meters.

44. (new) The camera system as recited in claim 1 wherein the case comprises one continuous piece of material surrounding the digital camera.